

## Technical Training Class Syllabus

### Summary:

The SMARDT Technical Training course is designed to equip technicians with the skills necessary to maintain SMARDT products. The three day course covers the revolutionary Danfoss Turbocor compressor technology, the innovative Kiltech controller, and the energy efficient SMARDT chiller family. Each day begins at 9am and lasts for approximately seven hours.

The certification received upon completion of this course authorizes the participants to carry out regular maintenance and basic troubleshooting of SMARDT equipment but does not certify them as a trainer on SMARDT, Kiltech, or DTC equipment. Certification will remain valid for a period of 18 months, after which, SMARDT reserves the right to require additional advanced or refresher training in order to maintain certification.

SMARDT reserves the right to enroll applicants from multiples organizations in any course administered by SMARDT and the right to reject applicants or refuse certification, at its sole discretion, if pre-requisites are not met.

### Location:

#### SMARDT Inc.

1840 Trans Canada Hwy  
Dorval, QC  
H9P 1H7  
Canada

Tel: (514) 683-5585

Fax: (514) 683-6013

[productsupport@smardt.com](mailto:productsupport@smardt.com)

[www.smardt.com](http://www.smardt.com)

### Cost:

No. of Trainees:	1-2	3-4	5-6	7-10
Registration Fee:	\$1350 ea.	\$1200 ea.	\$1050 ea.	\$900 ea.

All figures are in US dollars, are inclusive of all applicable taxes, and are per person per company. Discounts apply only for reservations made 30 calendar days in advance. Travel, accommodations, and transportation are the responsibility of the participants. Upon request SMARDT will provide hotel recommendations.

### Cancellation Policy:

A cancellation fee of 30% will apply if attendance is cancelled within 14 calendar days of a scheduled course, 60% if cancelled within 7 calendar days, and 100% if cancelled within 24 hrs or in the case of an absence.

SMARDT reserves the right to cancel a scheduled course if enrollment is insufficient. SMARDT will provide written notice of its intention to cancel a minimum of two weeks prior to the scheduled course date. Please confirm scheduling with the Product Support department prior to making your travel arrangements.

## Pre-requisites

- Previous Accreditation in HVAC/R or minimum field experience
  - Documented Education (1 of the following 4)
    - Engineering Degree
    - Associates Degree
    - Certificate
    - Trade
  - 5 yrs minimum experience with Centrifugal chillers
- Adequate Computer Skills
  - Familiar with Microsoft Windows
  - Familiar with Microsoft Office
  - Able to copy/paste files/folders
  - Able to open, create, and save files
  - Able to capture screen shots
  - Able to download and install software
- Familiar with basic multimeter functions
  - Measuring resistance ( $\Omega$ )
  - Measuring voltage ( $\tilde{V}$  or  $\overline{V}$ )
  - Measuring amperage ( $\tilde{A}$  and  $\overline{A}$ )
  - Measuring milli-amperage ( $\tilde{mA}$  and  $\overline{mA}$ )
  - Measuring continuity (••••)
  - Measuring diodes (••)
  - Measuring capacitance (+(-))
- Laptop Computer
  - Windows XP/Vista 32 bit Operating System or Windows 7 with 32 bit XP emulator
  - Adobe Reader
  - Microsoft Word
  - Microsoft Excel
  - Portable wireless internet access
- Working English
  - Spoken
  - Written

## Preferences:

- Ability to read P&ID documents
- Previous electrical training
- Previous centrifugal chiller experience
- Previous VFD experience
- Previous controls experience

# Course Outline

## Day 1

- Company Overview/Technology history
- DTC Compressor
  - Compressor overview and key features
  - Discussion on centrifugal compressors
  - Compressor in-depth
  - Compressor operation

## Day 2

- Kiltech controller overview
  - Kiltech controller setup
  - Software installation
  - Data retrieval
  - Chiller component overview
  - Factory tour/chiller test run

## Day 3

- DTC Service Monitoring Tool (SMT) installation
- STC SMT overview
- Compressor troubleshooting
- Kiltech protocol converter setup
- Technical literature familiarization
- SMARDT forms and procedures

# Enrollment Form

## Contractor

Company Name: \_\_\_\_\_  
Contact Name: \_\_\_\_\_  
Street: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Office #: \_\_\_\_\_  
Fax #: \_\_\_\_\_

## Applicants

#1

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Cell #: \_\_\_\_\_  
Email: \_\_\_\_\_  
Experience:                      None                      |                      Some                      |                      Significant

#2

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Cell #: \_\_\_\_\_  
Email: \_\_\_\_\_  
Experience:                      None                      |                      Some                      |                      Significant

#3

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Cell #: \_\_\_\_\_  
Email: \_\_\_\_\_  
Experience:                      None                      |                      Some                      |                      Significant

#4

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Cell #: \_\_\_\_\_  
Email: \_\_\_\_\_  
Experience:                      None                      |                      Some                      |                      Significant

#5

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Cell #: \_\_\_\_\_  
Email: \_\_\_\_\_  
Experience:                      None                      |                      Some                      |                      Significant

#6

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Cell #: \_\_\_\_\_  
Email: \_\_\_\_\_  
Experience:                      None                      |                      Some                      |                      Significant

#7

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Cell #: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Experience:                      None                      |                      Some                      |                      Significant

#8

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Cell #: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Experience:                      None                      |                      Some                      |                      Significant

#9

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Cell #: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Experience:                      None                      |                      Some                      |                      Significant

#10

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Cell #: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Experience:                      None                      |                      Some                      |                      Significant

**SMARDT Sales Representative**

Company Name: \_\_\_\_\_  
 Contact Name: \_\_\_\_\_  
 Street: \_\_\_\_\_  
 City: \_\_\_\_\_  
 State: \_\_\_\_\_  
 Office #: \_\_\_\_\_  
 Cell #: \_\_\_\_\_  
 Fax #: \_\_\_\_\_

Training Dates: \_\_\_\_\_ Purchase Order #: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_